REMARKS

Claims 7-17 were pending in the present application. Claims 7-8 and 10-16 have been amended to correct minor antecedent errors. New claims 18-21 have been added. Thus, claims 7-21 are now pending. The specification was amended to include reference numbers already included in the figures and understood from the specification. No new matter was added.

Applicants acknowledge the remarks in the Office Action regarding the Information Disclosure Statement filed July 28, 2000. Since that statement included a translation of an Official Action issued in a corresponding Taiwanese application, which action cited a Taiwanese Patent corresponding to EP 0 745 367, previously cited and considered by the Examiner (see PTO-1449 included with the present Office Action), Applicants believe further action is not needed. Applicants are not aware of other art which was to be submitted with the Information Disclosure Statement of July 28, 2000.

The drawings were objected to as failing to comply with 37 C.F.R. § 1.84(p)(5). The specification has now been amended to obviate this objection. An abstract on a separate sheet was required. This has been supplied. The abstract submitted herewith is identical to that found on the front sheet of the PCT publication corresponding to this application. No new matter was added.

Claims 7-17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In view of the above amendments to the claims, Applicants respectfully traverse this rejection.

The rejections to the claims due to insufficient antecedent basis have been addressed in the above amendments. Additionally, the Office Action objected to the phrase "at least partly fills out any through-penetrating pores." This language is specifically defined on page 8, lines 11-17, of the application. The through-penetrating pores are channels that form between the wearer's skin and the folds in the puckered or gathered edge of the barrier material. The

term "partly fills" is further defined on page 13 of the specification: When the non-adhesive sealing medium at least partly fills out a pore, the pore radius will decrease and the product $|(2\gamma \cos\theta/mr)|$ will increase. The same applies when an increased wetting angle is achieved. *Page 13, lines 1-3.* Thus, this language is defined and would be clear to one skilled in the art. The remaining rejections have been addressed. In view thereof, Applicants respectfully request that these rejections be withdrawn.

Claims 7-12 and 16-17 were rejected as anticipated under 35 U.S.C. § 102(e) by Schulte et al., U.S. Patent No. 6,156,024. Applicants respectfully traverse this rejection.

The present invention is directed to an absorbent article wherein at least the sealing edge or sealing edges are treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pores which are formed between the sealing edge or edges and an abutment part of a wearer's skin, and/or which, when the article is donned, smears said abutment skin part and thereby increases a liquid-skin wetting angle. This invention provides an absorbent article with improved sealing against the wearer's skin.

The Schulte et al. patent relates to absorbent articles having lotioned leg cuffs. The lotion composition is preferably applied to the body contacting surface of a diaper leg cuff. *Column 24, lines 64-66.* An effective amount of a lotion coating is provided which is an amount of a particular lotion composition which will be effective in reducing the abrasion between the cuffs and skin in the area where the cuffs contact the wearer's skin. *Column 16, lines 29-33.* The lotion compositions comprise an emollient, an immobilizing agent for the emollient and optionally a hydrophilic surfactant and other optional components. *Column 16, lines 39-42.* The immobilizing agent is an especially key component of the lotion composition and is an agent capable of immobilizing the emollient on the diaper leg cuff to which the lotion composition is applied. *Column 19, lines 33-36.*

In order to anticipate an invention, each and every element as set forth in the claim must be found, either expressly or inherently in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. *See MPEP § 2131.* The

present invention sets forth an absorbent article wherein the sealing edges of the liquid barriers are treated with a non-adhesive sealing medium which at least partly fills out any through-penetrating pores which are formed between the sealing edge or edges and the wearer's skin. The Schulte et al. patent specifically details a lotioned leg cuff structure wherein an immobilizing agent is used for the emollient to keep the lotion on the cuff. A teaching that the lotion should at least partly fill out any through-penetrating pores is not found. Moreover, Schulte teaches that the lotion should be applied to the *surface* of the leg cuffs, not the *edges*. Thus, each and every element of the presently claimed invention is not shown in the Schulte et al patent. In view thereof, Applicants respectfully request that this rejection be withdrawn.

Claims 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schulte et al. Applicants respectfully traverse this rejection.

As discussed above, Schulte et al. does not teach or describe the use of a sealing medium on the sealing edge or edges of a liquid barrier which sealing medium at least partly fills out any through-penetrating pores which are formed between the sealing edge or edges and the wearer's skin. In fact, Schulte et al. teaches away from such a sealing medium by teaching the use of an immobilization agent which immobilizes the emollient on the diaper leg cuff to which the lotion composition is applied. Moreover, claims 13-15 are directed to a sealing medium which provides particular wetting angles. Schulte et al. does not teach such wetting angles. In view thereof, the claimed invention would not have been obvious from Schulte et al. and Applicants respectfully request that this rejection be withdrawn.

Applicants believe they have responded to all matters raised in the above referenced Office Action and that the application is now in condition for allowance. If the Examiner has any questions concerning this Application or this Reply and Amendment, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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ABSTRACT

An oblong absorbent article that includes a liquid-impermeable bottom sheet, and upper liquid-permeable sheet and an absorbent body disposed between these sheets, and on each side of the longitudinal center line of the upper sheet at least one longitudinal elastic liquid barrier having at least the free edge treated with a non-adhesive sealing medium which partly fills out the pores formed between the free edge and the abutment surface on the wearer, and/or which, when the article is donned, increases around said abutment surface, the wetting angle of the liquid to the skin. An absorbent article that includes an essentially liquid-impermeable top sheet above an absorbent body enclosed between an upper liquid-permeable sheet and a liquid-impermeable sheet, the top sheet being provided with elastic for shaping the article to the wearer's body and incorporating apertures intended to register with the anus and the urethra orifice of the wearer in use, around which apertures elastically puckered sealing edges are disposed, at least one sealing edge being coated with the sealing medium.

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Page 6, Paragraph Beginning at Line 20

Test equipment was constructed with the intention of studying the sealing effect achieved between a liquid barrier or some other puckered barrier and the wearer's skin. This equipment is shown in Figs. 1a, 1b and 1c and comprises a Plexiglas stand which includes a base plate **a** and an upstanding support plate **b**. A first upwardly open, semi-cylindrical element 1 is fastened horizontally to the upstanding support plate **b** and has around its periphery 11 a scale which denotes the available elongation or stretch. One end of the semi-cylindrical element is attached to the support plate while the other end has an end-wall 1'. Provided at the very bottom of the semi-cylindrical element 1 is a hole 2 to which a vertically upstanding filling tube 3 and an inclined measuring tube 4 lead, both of said tubes having a scale expressed in mm water. The equipment also includes a loose second semi-cylindrical element 5 whose diameter is somewhat larger than the diameter of the first semi-cylindrical element 1 and which has one side open and an end-wall 5' at its other end.

Page 7, Paragraph Beginning at line 6

As shown in Fig. 1b, a measuring operation is carried out by securing a liquid barrier 6 around the outer periphery of the first semi-cylindrical element and fastening said barrier around the upper edges. The elastic part 7 is directed towards the attachment of the semi-cylindrical element to the support plate **b**, and the liquid barrier material 8 is folded around the end-wall 1' of the first semi-cylindrical element 1 on the other side. The elastic part is fastened along the scale on the semi-cylindrical element so as to enable the available elongation or stretch to be read-off. The end-wall 5' of the second semi-cylindrical element 5 is placed against the end-wall 1' of the first semi-cylindrical element with said upfolded part of said barrier material 8 located therebetween and pressed thereagainst with the aid of a clamp 10, such as to obtain a small clearance 9 between the cylindrical walls. Synthetic urine is introduced through the vertical tube 3. The liquid barrier is first weighted down so as to fill the clearance between the semi-cylindrical elements. A liquid pressure is thereafter built-up against the elastic edge 7 at the same time as a liquid column is formed in the tubes 3, 4, where the pressure can be read-off. Liquid is introduced until leakage occurs at arrow B (Fig. 1c) at the breakthrough pressure.

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Amended Claims 7-8 and 10-16

7. (Amended) An absorbent article that includes longitudinally extending side extremities, an absorbent body disposed between a liquid-impermeable bottom sheet, which is intended to lie distal from [the] a wearer in use, and a liquid-permeable upper sheet which is intended to lie proximal to [the] a wearer, and either:

1) at least one longitudinally extending elastic liquid barrier on each side of [the] a center line of the upper sheet, the barrier being made of an essentially liquid-impervious material and fastened to the upper or bottom sheet along or adjacent to a respective longitudinally extending side extremity of the article and having a free sealing edge facing towards [the] a wearer, or

2) above the upper sheet, an essentially liquid-impermeable top sheet which is intended to lie against [the] a wearer, and which includes elastic for shaping the article to [the] a wearer's body, and includes apertures intended to lie in register with [the] an anus and [the] a urethra orifice of [the] a wearer, around which apertures elastically puckered sealing edges are disposed in the top sheet[,];

wherein at least said sealing edge of 1) or said sealing edges of 2) are treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pores which are formed between said sealing edge of 1) or sealing edges of 2) and [the abutment surface on the wearer] an abutment part of a wearer's skin, and/or which, when the article is donned, smears said abutment [surface] skin part and thereby increases a liquid-skin wetting angle [of the liquid to the skin].

8. (Amended) The absorbent article according to claim 7, wherein said sealing edge of 1) or said sealing edges of 2) are coated with said sealing medium in an amount sufficient to both partly fill out [said] any pores and to smear [the wearer's skin] said abutment skin part.

10. (Amended) The absorbent article according to Claim 9, wherein the amount [is] corresponds to 1-30 g/m^2.

11. (Amended) The absorbent article according to Claim 9, wherein the amount [is] corresponds to 2-20 g/m^2.

12. (Amended) The absorbent article according to Claim 9, wherein the amount [is] corresponds to 3-10 g/m^2.

13. (Amended) The absorbent article according to Claim 7, wherein said sealing medium [has] gives a wetting angle above 90°.

14. (Amended) The absorbent article according to Claim 7, wherein said sealing medium [has] gives a wetting angle above 95°.

15. (Amended) The absorbent article according to Claim 7, wherein said sealing medium

[has] gives a wetting angle [above] of at least 100°.

16. (Amended) The absorbent article according to Claim 7, wherein [the rheological properties of] said sealing medium [are] has rheological properties such that said medium will be essentially rigid and viscous at room temperature and sufficiently fluid to smear the [skin of the] said wearer's skin at body temperature.